

COPY OF ALL CLAIMS

1. A method for altering the substrate specificity of an enzyme such that its specificity relative to a substrate on which no specificity can initially be detected increases to a level where specificity on that substrate is detected, which method comprises the steps of:

- a) introducing a DNA which comprises a copy of the gene coding for the enzyme into the Escherichia coli strain XL1 Red or into a functional derivative,
- b) incubating the transformed Escherichia coli strain XL1 Red or its functional derivative to generate mutations in the enzyme gene,
- c) transferring the mutated DNA from the strain XL1 Red or its functional derivative to a microorganism which has no impeding enzyme activity,
- d) incubating this microorganism to detect the enzyme activity in at least one selection medium which comprises at least one enzyme substrate to recognize altered substrate specificity of the enzyme, with or without other indicator substances,
- e) selecting the microorganisms which show an alteration in the substrate specificity, said microorganisms in steps b), d) and e) being a member selected from the group consisting of bacteria, fungi and yeasts.

4. A method as claimed in claim 1, wherein the microorganisms are selected from the group consisting of Gram-positive and Gram negative bacteria.

11. A method as claimed in claim 1, wherein the alteration in the substrate specificity results in a stereoselective enzyme activity.